

Building fairly green in Provo

Larry and Carol Walters

Where we started: August, 2005

- Our objective:
- Minimize total energy use through
 - Passive solar design
 - Energy efficient construction



Need for insulated solar mass



Structural Insulated Panel construction: 10" (R-40)



12" roof panel assembly: R-50



Foaming the connections to eliminate
air infiltration



Windows: Triple-pane, hard E coating,
Argon filled, Canadian

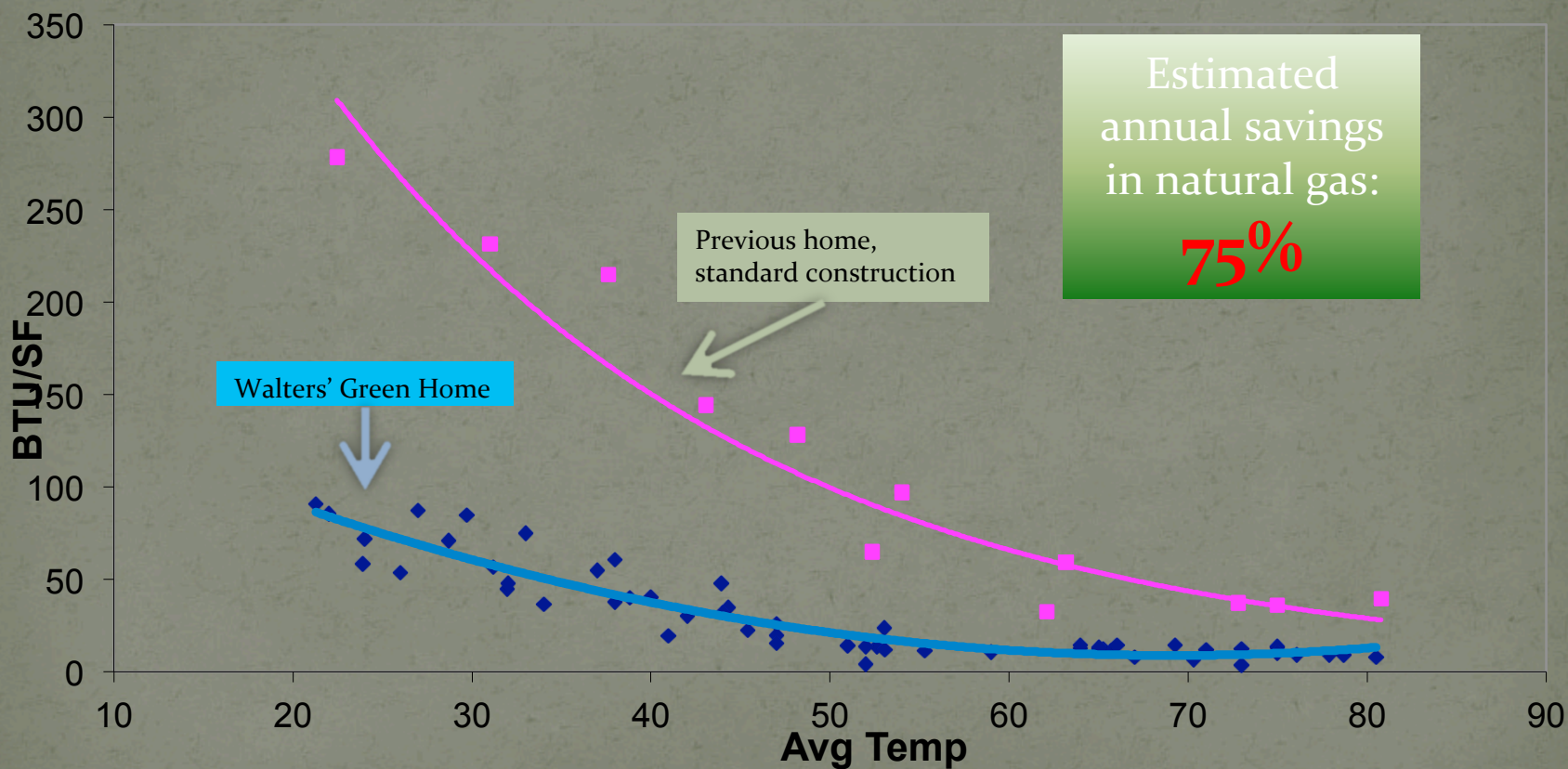


June, 2007: Move in!



Did it work?

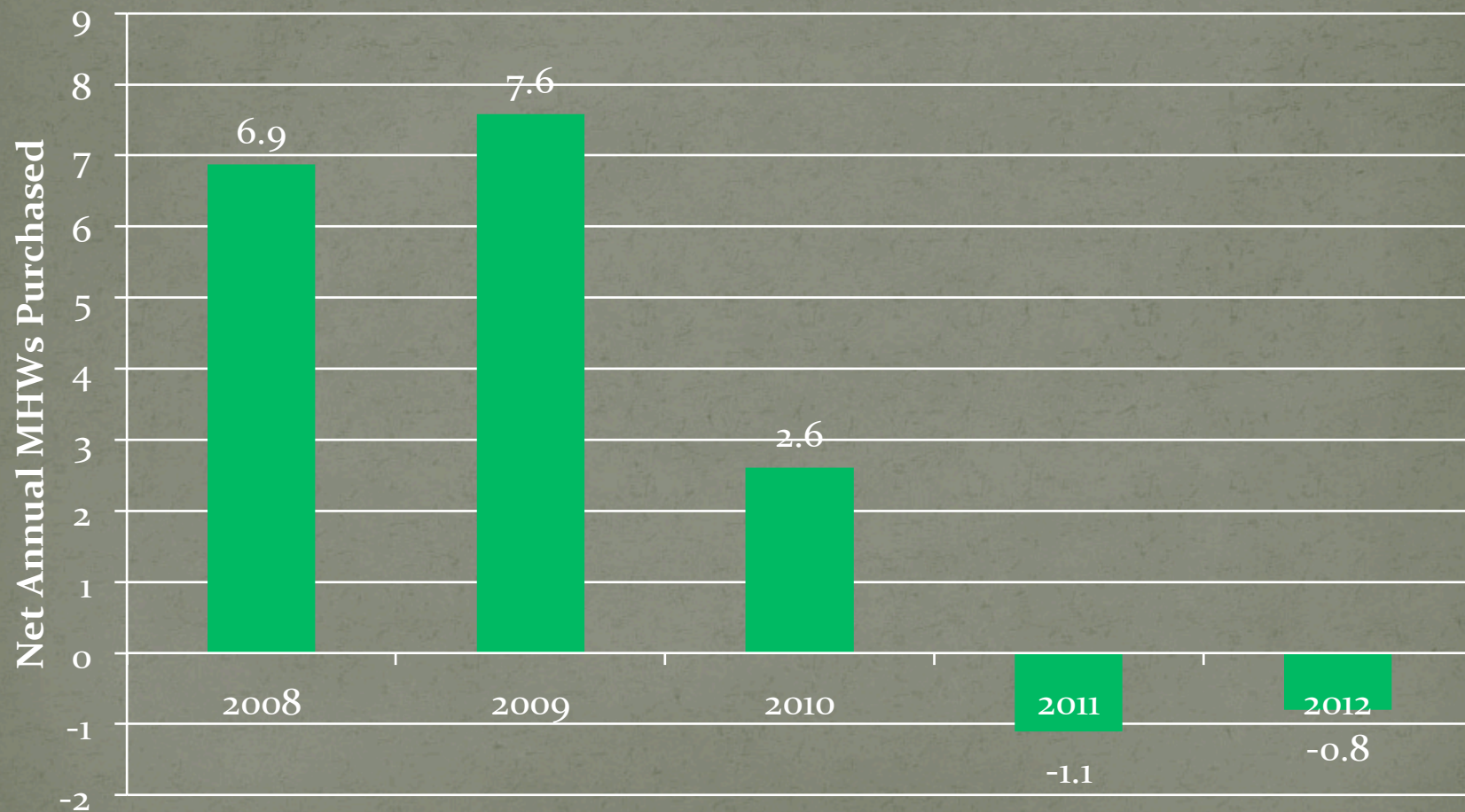
Walters Home: Natural Gas Utilization



July 1, 2010: Solar panels installed



Net Electricity Savings: 100%



Investment analysis

- Actual cost of system (after rebates and tax credits):
 - \$18,100
- Average annual production: 10,595 KWH
- Cost per KWH from city electric utility (including taxes):
 - 9.35 cents/KWH
- Our cost of production (assuming a 25-year life):
 - 6.83 cents/KWH
- Return on investment: 5.5%